



Memorandum

To: Mr. Mike Cirian, P.E., EPA Remedial Project Manager

From: August Welch, Damon Repine, Sean Coan

Date: August 8, 2016

Subject: Weekly Onsite Technical Review Report #5 for CFAC RI/FS Phase I - Week Ending 7/15/16

The following memo summarizes CDM Smith's on-site technical review conducted on July 15, 2016 for the Phase I RI/FS work being conducted by Roux Associates, Inc. (Roux) at the Columbia Falls Aluminum Plant (CFAC). The technical memorandum is organized by a summary of the observations of site activities, a summary of open items or issues that require further discussion with the EPA, and a summary of previously open items which have been addressed.

Site Activities

Below is a summary of the site activities observed by CDM Smith during the drilling and sampling work performed by Roux on June 22 and June 23, 2016.

On July 15, 2016 CDM Smith observed sonic drilling of a monitoring well and DPT drilling for the incremental sampling methodology (ISM) soil sampling within the operational area grids. Well development activities were scheduled to begin during this week; however the schedule was delayed due to driller availability. The start of well development activities was re-scheduled for the week of July 18, 2016.

CDM Smith did not observe any anomalies during the sonic drilling and installation of the monitoring well. While observing the DPT drilling and ISM soil sampling in the operational area grids, CDM Smith found that the soil sampling methods being employed were consistent with ISM guidance document that is referenced in the addendum to Roux's sampling and analysis plan (SAP).

CDM Smith spoke with Roux field personnel regarding the methods that will be used during well development. CDM Smith noted that the standard operating procedure for well development in Roux's SAP did not specify that depth to water measurements be taken during well purging. CDM Smith recommended that the well development form be modified to include a depth to water measurement be recorded with each round of standard water quality parameters (i.e. temperature, pH, specific conductance, etc.). The rationale for collecting depth to water measurements during well purging is that well drawdown data can be compared with the purging rates and an estimate of the specific capacity of the well can be calculated. This data may be useful for planning purposes during groundwater sampling and an estimate of the specific capacity of the wells can also be useful for general hydrogeologic assessment and future remediation planning. Roux personnel stated that they would modify the well development

Mr. Mike Cirian, P.E.
August 8, 2016
Page 2

form to include a column for depth to water measurements taken during purging. On August 2, 2016, Roux sent copies of some of the well development data to CDM Smith for review. CDM Smith reviewed the well development data forms and found that depth to water measurements were being recorded during well purging.

Open Action Items/Further Discussion with EPA Needed

There are currently no open issues associated with the on-site technical review of Phase 1 of the RI/FS.

Previously Open Items That Have Been Addressed

The following items were previously identified as open issues and have been adequately addressed through discussions with Roux field personnel:

- Previously observed methods for the ISM sampling in the operational area grids were found to be inconsistent with the SAP and ISM guidance document. After discussions with CDM Smith, Roux and the EPA, the sampling methods were revised to be consistent with the SAP. Roux has since revised the standard operating procedure for ISM and has included this document in the SAP Addendum. CDM Smith verified through on site observations of the sampling that the revised methods were consistent with the ISM guidance document referenced in the SAP.

Oversight Schedule

The upcoming schedule for oversight is as follows:

- CDM Smith is planning the next site visit during the test pit investigation in the suspected asbestos landfills scheduled for the week of August 15th. CDM Smith is also planning a site visit during the start of the groundwater sampling event scheduled for the week of September 5th.
- CDM Smith will continue to stay in communication with Roux personnel and oversight services on an as-needed basis.